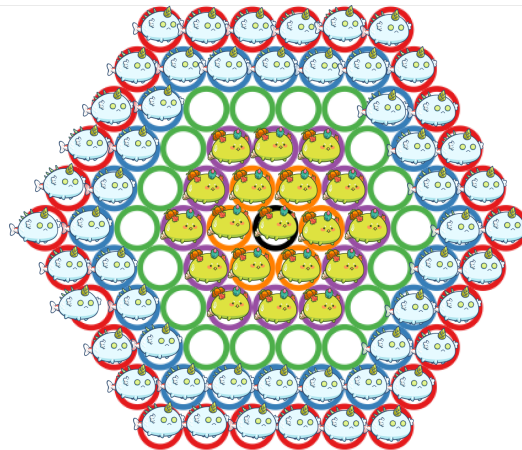


Axie Infinity – Game Engineer Advanced Test

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Tags	engineer game

Using Unity, create a turn-based simulation with the following requirements:



- Load two **Spine** character models using resources provided at the end of this paper.
- There are two teams: defense team and attack team. Over time the attack team will move closer to the defense team to attack.
- Defense team (green characters)
 - ▼ Can NOT move
 - ▼ Starting HP: 30.

- Attack team (cyan characters)
 - ▼ Can move.
 - ▼ Starting HP: 10.
- Each second the characters will do one of the following actions:
 - ▼ If there is at least one adjacent enemies: attack ONE single enemy.
 - ▼ If there is no adjacent enemy and can move: move to the closest enemy.
 - ▼ Else: idle.
- Attacking logic between two characters: each character will generate a random number in range [0-2]:
 - ▼ If $(3 + \text{attacker_number} - \text{target_number}) \% 3 == 0$, deal 4 damage.
 - ▼ If $(3 + \text{attacker_number} - \text{target_number}) \% 3 == 1$, deal 5 damage.
 - ▼ If $(3 + \text{attacker_number} - \text{target_number}) \% 3 == 2$, deal 3 damage.
- When a character dies, it is removed from the map.
- Both attacker and defender do action at the same time, we'll have a case both will be death.

Requirement

- Each character should have a HP bar sticked on top of its model. HP bar should be animated smoothly.
- Minimap.
- Zoom & drag battlefield.
- Pause & Change Speed feature.

Extra

- Implement a Power bar to show the realtime relative power between two teams.

- While FPS is still ≥ 30 , increase the hexagon radius by 2 and fill team members for both side (each team get 1 more circle, there will always be one empty circle between two teams). Show us the largest map that you can create.
- When clicked on any character:
 - Outline the character
 - Show real-time panel stats info (hp/max hp, attack damage, random number generated for that character).
- Blur objects (characters , cells) at far distance (6 cells or more from center of the screen). e.g. When dragging battlefield, the center of the screen changes, and the objects to be blurred also changed.

NOTE

- Please make your own assumptions in case of any doubts.
- Feel free to do more than just that (sounds, visual FXs, extra gameplay, etc.). We expect something fun and creative.

Resources

Spine Unity Runtime and spine models already in <https://github.com/axieinfinity/game-test-01>

Submission

- Project progress and source code must be hosted here: <https://github.com/axieinfinity/game-test-01>. You should create a pull request to the master branch to show your work.
- A working build on Windows or OSX platform.

Deadline: maximum 7 days.

